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Blair B.A. Birmingham

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EXAMINER

PATEL, HARESH N

ART UNIT

PAPER NUMBER

2154

MAIL DATE

DELIVERY MODE

04/04/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|----------------------------------------------------------------------------------------------|----------------------------------------------|-------------------------------------------------------|--|
| <p align="center">Advisory Action Before the Filing of an Appeal Brief</p> | <p>Application No. 09/675,033</p> | <p>Applicant(s) BIRMINGHAM, BLAIR B.A.</p> | |
| | <p>Examiner Haresh N. Patel</p> | <p>Art Unit 2154</p> | |

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 05 March 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: None.
Claim(s) objected to: None.
Claim(s) rejected: 1-46.
Claim(s) withdrawn from consideration: None.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
13. ☐ Other: _____.

/Haresh N. Patel/
Primary Examiner, Art Unit 2154

Continuation of 11. does NOT place the application in condition for allowance because: the cited prior arts still render the claims unpatentable and the final rejection dated 1/24/2008 is deemed proper. In fact, the specification of this application, provided by the applicant, under prosecution also very clearly states, "the present invention is not intended to be limited to the specific form set forth herein, but on the contrary, it is intended to cover such alternatives, modifications, and equivalents, as can be reasonably included within the spirit and scope of the invention. The preceding detailed description is, therefore, not to be taken in a limiting sense, and the scope of the present invention is defined only by the appended claims. Since, applicant's claims contain broadly claimed subject matter it clearly reads upon the examiner's interpretation of the claimed subject matter.

The applicant's remarks dated 3/5/2008 to overcome the rejections are noted however the applicant is requested to consider the same explanation regarding the same teachings of the cited references. In particular the applicant is requested to not ignore all the clarifications i.e., For further clarification, regarding the broadly claimed invention, one of ordinary skilled in the art at the time of the invention very well knows that "an operating system that controls general purpose computing tasks" is the inherent property of the operating system, as the operating system by itself is the collection of software that directs a computer's operations, controlling and scheduling the execution of other programs, and managing storage, input/output, and communication resources. It is the software designed to control the hardware of a specific data-processing system in order to allow users and application programs to make use of it. The operating system is a software that controls the execution of computer programs. The operating system is a software designed to handle basic elements of computer operation, such as sending instructions to hardware devices like disk drives and computer screens, and allocating system resources such as memory to different software applications being run. Note: both the claimed "appliance operating system" and "general operating system" are operating systems and not applications. Further, Appliance is an instrument, apparatus, or device for a particular purpose or use. The applicant's statements of the arguments/remarks dated 10/24/2007 are noted, i.e., applicant respectfully submits that one skilled in the art would understand that the term "dedicated" does not mean "used for a single function",...., That is, one skilled in the art would understand that the term "dedicated" refers to an appliance operating system that controls only a subset of appliances available to an information handling device. Applicant respectfully points out that the passage cited by the Office reads in full as follows "In one embodiment, entertainment operating system 172 can control either the built in CD player, or the second CD player that is part of home theater 187, while a general operating system would be limited to controlling the built in CD player." Specification, page 7, lines 11-14. Applicant's clarification in the remarks dated 5/2/2007 regarding the claimed invention is noted. Applicant's statements, "Applicant respectfully submits that operating systems can in fact be executed concurrently" (emphasis added), with respect to claims 1, 18 and 26; "operating system is typically executed at a processor" (emphasis added), with respect to claim 26; "Applicant respectfully submits that one skilled in the art would know that there are a number of ways that an operating system can control an appliance" (emphasis added), with respect to claims 1, 7, 18 and 26; "The general purpose information handling system can use an appliance operating system to control an appliance and use other operating systems to perform other tasks and therefore be a general purpose system"(emphasis added), with respect to claim 18. Regarding the applicant's concern, i.e., According to Solomon: The present invention provides an improved method and apparatus for concurrent execution of operating systems. A software abstraction layer provides an interface that allows a first operating system to run concurrently with a second operating system on the same data processing system, in which the first operating system is in communication with the base machine in the data processing system. Interaction between the second operating system and the base machine is handled by the software abstraction layer translating requests and calls from a format normally made by the second operating system to the base machine into a format that is processed by the first operating system. Solomon, col. 2, lines 14-25 (emphasis added). Thus, the intended purpose of Solomon is to provide a method and apparatus to allow two operating systems to run concurrently, with one operating system providing an interface between a base machine and the second operating system. ... If the system of Watanabe, which selects and executes only one of a plurality of operating systems at a time, were combined with the system of Solomon it would render Solomon unsatisfactory for its intended purpose of providing a scheme to allow a computer to run multiple operating systems concurrently. Concurrent running of operating systems, as taught by Solomon, is diametrically opposed to executing only one operating system at a time as taught by Watanabe. Accordingly, one of ordinary skill in the art would not combine Solomon and Watanabe as each reference teaches away from the essential feature of the other. Further, in order to combine references for an obviousness rejection, there must be a reasonable expectation of success which is found in the prior art, not in an applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). There is no reasonable expectation that a combination of Solomon and Watanabe would be a success, because Solomon teaches concurrent execution of operating systems, and Watanabe teaches execution of a single operating system at a time. Accordingly, Solomon and Watanabe cannot be combined for purposes of an obviousness rejection. The examiner respectfully disagrees. First the disclosure and the teachings of the Solomon are not limited as concluded by the applicant. Second the operating systems of the claimed invention is not limited to which software layers they belong to. Third, there is no need to combine the system as applicant suggested (and/or irrelevant pieces) of Watanabe with Solomon because the Watanabe is relied upon to demonstrate the well-known concept / feature of using dedicated software, e.g., figures 9A, 9B and 14, please see the rejections. One of ordinary skilled in the art very well knows that the concept of using dedicated software does not require the Watanabe's system and/or the above applicant identified entities / features to be combined! The Solomon reference discloses the relied upon limitations, please refer to the office action dated 7/27/2007. One of ordinary skilled in the art would easily understand that dedicated use of the software including operating system would limit the use of the software and would be used for specific use and which is a technique for reliable performance. Further, it is well established that a conclusion of obviousness may be made based on a combination of references based on a reason, suggestion or motivation to lead an inventor to combine those references. In re Pro-Mold and Tool Co. v. Great Lakes Plastic Inc., 37 USPQ2d 1626, 1629 (Fed. Cir. 1996). Also, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of a primary reference. It is also not that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. In re Keller, 642 F.2d 414, 425, 208 USPQ 871, 881 (CCPA 1981); In re Young, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991). The reason or motivation to modify the reference may often suggest what the inventor has done, but for a different purpose or to solve a different problem. It is not necessary that the prior art suggest the combination to achieve the same advantage or result discovered by applicant. In re Linter, 458 F.2d 1013, 173 USPQ 560 (CCPA 1972). There is no requirement that the prior art provide the same reason as

the applicant to make the claimed invention. Ex parte Levengood, 28 USPQ2d 1300, 1302 (Bd. Pat. App. & Inter. 1993). Further, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See In re McLaughlin, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Regarding the applicant's concern, i.e., one skilled in the art would not combine Endo and Watanabe, because doing so would render Endo unsuitable for its intended purpose. According to Endo An object of the present invention to provide a scheme to making the input and output device provided in a computer in common for a plurality of operating system, in a multiple operating system control unit operating a plurality of mutually distinct operating systems on one computer system. In order to accomplish the above mentioned object, According [sic] to the first invention, a computer system including a plurality of operating systems, and an OS switching means for switching a plurality of operating systems, characterized in that said OS switching means makes reference to a preferential interrupt table on the basis of an interrupt factor for switching to corresponding operating system and calls interrupt processing means incorporated in said operating system for making the input and output device provided in the computer system in common for a plurality of operating systems. Endo, col. 2, line 65 - col. 3, line 13 (emphasis added). Thus, the intended purpose of Endo is to provide a scheme to allow input and output devices to be operated by a computer that is running multiple operating systems concurrently. See Id., col. 5, lines 33 -38 ("In the shown embodiment, discussion will be given for the case where two operating systems 116 and 117 are present in the computer system. The operating systems 116 and 117 execute tasks 110 to 115 using memory assigned for each operating system and a resource of the processor"). As explained above, Watanabe selects and executes only one of a plurality of operating systems at a time. Thus, if the system of Watanabe, were combined with the system of Endo it would render Endo unsatisfactory for its intended purpose of providing a scheme to allow input and output devices to be operated by a computer that is running multiple operating systems concurrently. Accordingly, one skilled in the art would not combine the references, and their combination cannot support an obviousness rejection. The examiner respectfully disagrees. First the disclosure and the teachings of the Endo are not limited as concluded by the applicant. Second the operating systems of the claimed invention is not limited to whether or not allow input and output devices to be operated by a computer. Third, there is no need to combine the system as applicant suggested (and/or irrelevant pieces) of Watanabe with Endo because the Watanabe is relied upon to demonstrate the well-known concept / feature of using dedicated software, please see the rejections. One of ordinary skilled in the art very well knows that the concept of using dedicated software does not require the Watanabe's system and/or the above applicant identified entities / features to be combined! The Endo reference discloses the relied upon limitations, please refer to the office action dated 7/27/2007. One of ordinary skilled in the art would easily understand that dedicated use of the software including operating system would limit the use of the software and would be used for specific use and which is a technique for reliable performance. Further, it is well established that a conclusion of obviousness may be made based on a combination of references based on a reason, suggestion or motivation to lead an inventor to combine those references. In re Pro-Mold and Tool Co. v. Great Lakes Plastic Inc., 37 USPQ2d 1626, 1629 (Fed. Cir. 1996). Also, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of a primary reference. It is also not that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. In re Keller, 642 F.2d 414, 425, 208 USPQ 871, 881 (CCPA 1981); In re Young, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991). The reason or motivation to modify the reference may often suggest what the inventor has done, but for a different purpose or to solve a different problem. It is not necessary that the prior art suggest the combination to achieve the same advantage or result discovered by applicant. In re Linter, 458 F.2d 1013, 173 USPQ 560 (CCPA 1972). There is no requirement that the prior art provide the same reason as the applicant to make the claimed invention. Ex parte Levengood, 28 USPQ2d 1300, 1302 (Bd. Pat. App. & Inter. 1993). Further, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See In re McLaughlin, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Regarding the applicant's concern, i.e., one skilled in the art would not combine Endo and Ginter, because doing so would render Endo unsuitable for its intended purpose. As explained, the intended purpose of Endo is "to provide a scheme to making the input and output device provided in a computer in common for a plurality of operating system, in a multiple operating system control unit operating a plurality of mutually distinct operating systems on one computer system." Endo, col. 2, line 65 - col. 3, line 2 (emphasis added). However, Ginter discloses a virtual distribution environment (VDE) to enforce a secure chain of handling among distributed electronic devices. Ginter, Abstract. As part of the VDE, Ginter discloses a Rights Operating System (ROS) that includes "operating system layers for desktops (e.g., DOS, Windows, Macintosh); device drivers and operating system interfaces for network services (e.g., Unix and Netware); and dedicated component drivers for 'low end' set tops." Id., col. 73, lines 62-66. Thus, the Ginter system clearly discloses using multiple operating systems on multiple systems, such as multiple desktop computer systems. Accordingly, combining Ginter with Endo would render Endo unsuitable for its intended purpose of providing a scheme to allow input and output devices to be operated by a single computer system that is running multiple operating systems concurrently. Accordingly, one skilled in the art would not combine Ginter and Endo. The examiner respectfully disagrees. First the disclosure and the teachings of the Endo are not limited as concluded by the applicant. Second the operating systems of the claimed invention is not limited to whether or not making the input and output device provided in a computer in common for a plurality of operating system. Third, there is no need to combine the system as applicant suggested (and/or irrelevant pieces) of Ginter with Endo because the Ginter is relied upon to demonstrate the well-known concept / feature of using dedicated software, please see the rejections. One of ordinary skilled in the art very well knows that the concept of using dedicated software does not require the Ginter's system and/or the above applicant identified entities / features to be combined! The Endo reference discloses the relied upon limitations, please refer to the office action dated 7/27/2007. One of ordinary skilled in the art would easily understand that dedicated use of the software including operating system would limit the use of the software and would be used for specific use and which is a technique for reliable performance. Further, it is well established that a conclusion of obviousness may be made based on a combination of references based on a reason, suggestion or motivation to lead an inventor to combine those references. In re Pro-Mold and Tool Co. v. Great Lakes Plastic Inc., 37 USPQ2d 1626, 1629 (Fed. Cir. 1996). Also, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of a primary reference. It is also not that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. In re Keller, 642 F.2d 414, 425, 208 USPQ 871, 881 (CCPA 1981); In re Young, 927 F.2d 588, 591, 18 USPQ2d

1089, 1091 (Fed. Cir. 1991). The reason or motivation to modify the reference may often suggest what the inventor has done, but for a different purpose or to solve a different problem. It is not necessary that the prior art suggest the combination to achieve the same advantage or result discovered by applicant. In *re Linter*, 458 F.2d 1013, 173 USPQ 560 (CCPA 1972). There is no requirement that the prior art provide the same reason as the applicant to make the claimed invention. Ex parte *Levengood*, 28 USPQ2d 1300, 1302 (Bd. Pat. App. & Inter. 1993). Further, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See In *re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Regarding the applicant's concern, i.e., one skilled in the art would not combine Lee and Watanabe, because doing so would render Lee unsuitable for its intended purpose. In particular, Lee discloses an apparatus and method for securing system resources "in a concurrent multiple operating system environment." Lee, Abstract. According to Lee: The present invention provides an apparatus and method for monitoring and securing resources shared by multiple operating systems in a concurrent multiple operating system environment. Thus, with the present invention, the risk of altering data that is needed by other applications running under other operating systems concurrently is minimized. Id., col. 3, lines 20-25 (emphasis added). As explained above, Watanabe selects and executes only one of a plurality of operating systems at a time. Thus, if the system of Watanabe, were combined with the system of Lee it would render Lee unsatisfactory for its intended purpose of providing a scheme to share resources when multiple operating systems are running concurrently. Accordingly, one skilled in the art would not combine the references, and their combination cannot support an obviousness rejection. The examiner respectfully disagrees. First the disclosure and the teachings of the Lee are not limited as concluded by the applicant. Second the operating systems of the claimed invention is not limited to whether or not secure system resources in a concurrent multiple operating system environment. Third, there is no need to combine the system as applicant suggested (and/or irrelevant pieces) of Watanabe with Lee because the Watanabe is relied upon to demonstrate the well-known concept / feature of using dedicated software, please see the rejections. One of ordinary skilled in the art very well knows that the concept of using dedicated software does not require the Watanabe's system and/or the above applicant identified entities / features to be combined! The Lee reference discloses the relied upon limitations, please refer to the office action dated 7/27/2007. One of ordinary skilled in the art would easily understand that dedicated use of the software including operating system would limit the use of the software and would be used for specific use and which is a technique for reliable performance. Further, it is well established that a conclusion of obviousness may be made based on a combination of references based on a reason, suggestion or motivation to lead an inventor to combine those references. In *re Pro-Mold and Tool Co. v. Great Lakes Plastic Inc.*, 37 USPQ2d 1626, 1629 (Fed. Cir. 1996). Also, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of a primary reference. It is also not that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. In *re Keller*, 642 F.2d 414, 425, 208 USPQ 871, 881 (CCPA 1981); In *re Young*, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991). The reason or motivation to modify the reference may often suggest what the inventor has done, but for a different purpose or to solve a different problem. It is not necessary that the prior art suggest the combination to achieve the same advantage or result discovered by applicant. In *re Linter*, 458 F.2d 1013, 173 USPQ 560 (CCPA 1972). There is no requirement that the prior art provide the same reason as the applicant to make the claimed invention. Ex parte *Levengood*, 28 USPQ2d 1300, 1302 (Bd. Pat. App. & Inter. 1993). Further, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See In *re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).